

COR™FORGE F65 FC

DESCRIPTION

COR™FORGE F65 FC is a flux-cored, 9% chrome hot work alloy designed for hammer and press die forging applications. F65 maintains integrity when subjected to high heat and stresses. The welding characteristics allow flood welding and continuous multiple passes. The weld deposits are very clean and free of cracks, slag traps and porosity when properly applied. The weld metal can be tempered to a final hardness range of 40-53 Rc.

APPLICATIONS

F65 is typically used to repair and rebuild shallow hammer dies with high duty cycles, and press forging die impressions with high duty cycles.

PROCEDURE

A minimum preheat/interpass temperature of 900°F is recommended for hot work dies. Post heat at 900°F for 3 hours after welding, and then allow the deposit to cool below 200°F. Preheat the standard die steels to 800°F and maintain during welding, slow cool in still air after welding. Temper according to the temper chart for 1 hour/inch thickness. Preheat and post heat according to the base material for all other applications.

WELDING PARAMETERS

Type	Size	Volts	Amps	Shielding Gas/Flux
FC-G	1/16"	22-26	200-250	CO ₂ or Ar-CO ₂ Mixtures
FC-G	3/32"	25-40	350-600	CO ₂ or Ar-CO ₂ Mixtures
FC-G	1/8"	28-40	500-800	CO ₂ or Ar-CO ₂ Mixtures

MECHANICAL PROPERTIES AFTER TEMPER

Temperature	Hardness
950	52-55
1000	49-52
1050	44-47

CLASSIFICATION

9% Chrome Hot Work Tool Steel